

INTRAACTION, INC.

LASER DEEP-TECH IP CASE STUDY

How a 50-year photonics manufacturer renews its patent portfolio with PatentPC

INTRODUCTION

IntraAction, Inc. is a photonics manufacturer that designs, develops, and builds acousto-optic devices used to modulate, deflect, and precisely control laser beams. Its product families include modulators, deflectors, frequency shifters, mode lockers, Q-switches, tunable filters, fiber-pigtailed devices, and the RF driver electronics that power them.

Working with researchers, scientists, and OEM engineers worldwide, IntraAction delivers standard and fully custom solutions across telecommunications, spectroscopy, microscopy, life science, laser processing, and semiconductor lithography — including extreme ultraviolet (EUV) applications that push chip features down toward the single-digit nanometer scale.

BACKGROUND

Founded in 1975 in Bellwood, Illinois by acousto-optics pioneer John Lekavich, IntraAction has spent five decades turning the interaction of sound and light into commercial instrumentation. What began as a specialist supplier of Bragg cells and RF drivers has grown into a full engineering house with in-house design, fabrication, and test capability.

IntraAction needed to convert institutional expertise into enforceable, examiner-tested claims quickly, across many product lines at once, without pulling its small engineering team off revenue work or absorbing the cost of teaching general outside counsel the physics from scratch. Enter PatentPC.

“We had been refining the same core physics for decades. The challenge was never the invention — it was getting that depth of engineering onto paper as claims, at the pace our markets were moving.”

KHANH LE, CEO, INTRAACTION, INC.

SOLUTION

PatentPC works with IntraAction by embedding a patent-first mindset directly into the company’s innovation cycles. IntraAction’s breakthroughs in acousto-optic devices, modulators, and precision optical control demand rapid capture and protection before competitors can respond. PatentPC structures a streamlined

intake workflow that fits naturally into IntraAction’s engineering rhythm—quick disclosure sessions, targeted technical prompts, and AI-accelerated drafting ensure every invention is documented and shaped into a strong claim set without slowing development. This timeliness is essential in a field where product iterations and customer-driven enhancements happen continuously.

Communication with inventors is treated as a core strategic asset. PatentPC translates complex legal reasoning into engineering-friendly explanations, giving IntraAction’s inventors clarity on why certain claim structures matter, how prior art influences scope, and what design-around risks exist. Instead of opaque prosecution updates, inventors receive concise, actionable insights that help them refine future disclosures and strengthen the overall IP pipeline. This creates a collaborative environment where inventors feel heard, informed, and empowered.

PatentPC also tailors its drafting strategy to the system-level nature of IntraAction’s technology. Acousto-optic systems are not just components—they are interactions between materials, wave propagation, control electronics, and optical pathways. PatentPC captures these relationships holistically, producing patents that protect the full operational architecture rather than isolated features. This prevents competitors from bypassing IntraAction’s innovations with minor tweaks and ensures the company maintains ownership over the functional core of its technology.

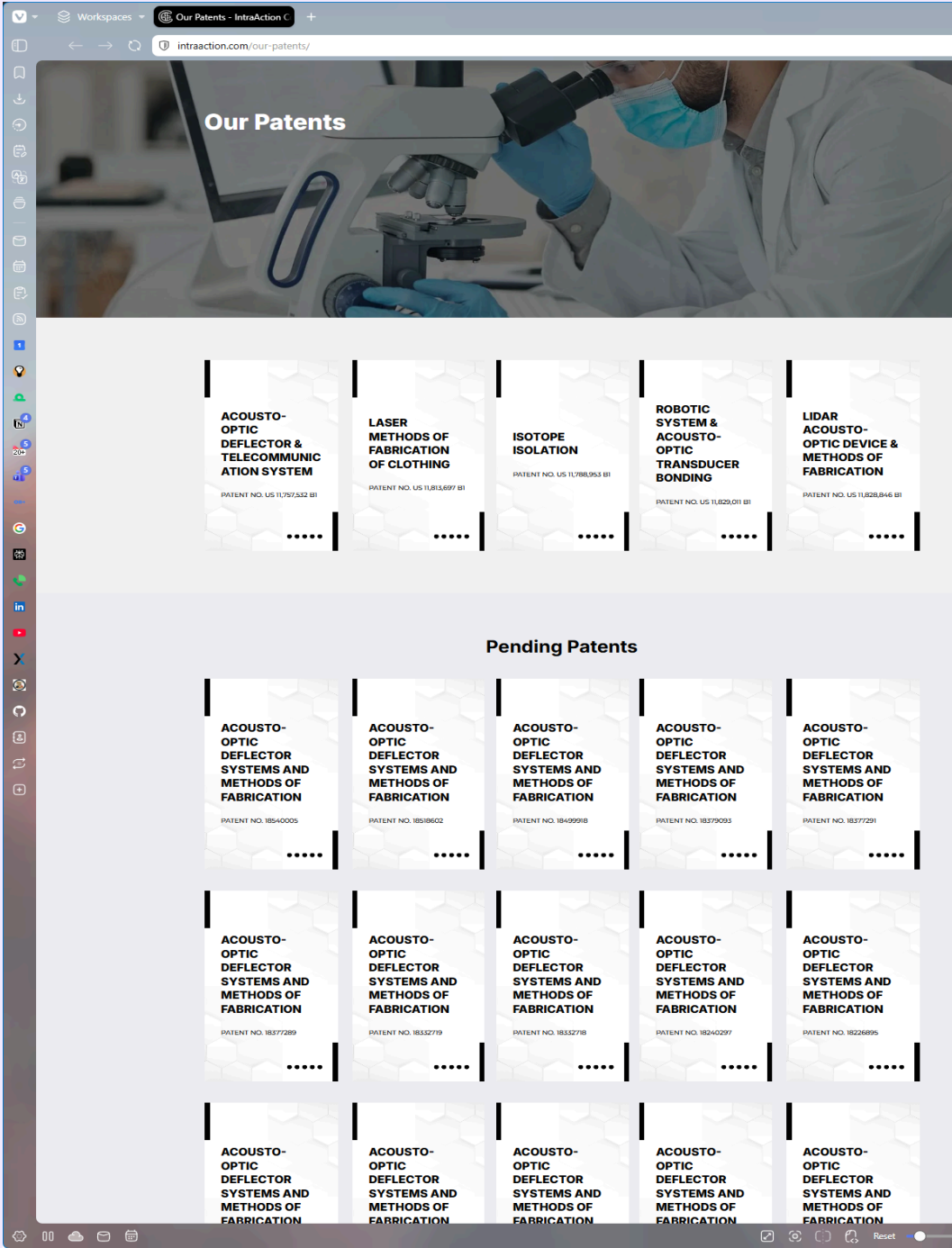
Finally, PatentPC manages IntraAction’s portfolio with disciplined coordination across deadlines, continuations, international filings, and strategic expansions. Inventors receive timely reminders, structured feedback loops, and clear next steps, eliminating administrative friction. The result is a patent program that feels lightweight for IntraAction’s teams but produces heavyweight protection—fast, organized, and deeply aligned with IntraAction’s mission to advance acousto-optic technology with precision and reliability:

- Family-based filing strategy — layered applications across AOD, AOM, driver electronics, and packaging rather than one-off filings.
- Physics-fluent drafting — counsel already conversant in diffraction, phonon–photon interaction, and RF drive, so no education bill.
- Rapid turnaround — applications delivered with technical depth on a compressed schedule.
- Human-owned claims, AI-accelerated support — attorneys drive scope; automation handles the mechanical load.
- Coordinated with existing outside counsel where IntraAction wanted continuity.

RESULTS

22	21	1
APPLICATIONS FILED	GRANTED PATENTS WITHIN 2 YEARS	PATENT-PENDING

“PatentPC patents have increased our company valuation significantly and we leveraged our patent power during partnership discussions.” KHANH LE, CEO, INTRACTION, INC.



IntraAction leveraged its patent portfolio as a core valuation driver during its recent partnership discussions by demonstrating that its acousto-optic technology wasn’t just innovative—it was defensible, exclusive, and strategically positioned for long-term market dominance. By presenting a portfolio with broad system-level claims, international coverage, and clear continuation pathways, IntraAction showed acquirers that they

weren't simply buying products, but securing ownership of the underlying optical-control architecture that competitors could not easily replicate. This shifted negotiations from a product-based valuation to an IP-anchored valuation, allowing IntraAction to command a premium rooted in future market control, reduced competitive risk, and the ability for the acquiring company to scale the technology globally with confidence.

Protect what your engineers already know.

PatentPC pairs experienced patent attorneys with practice automation so deep-tech manufacturers can file broader, faster, and for less. Talk to us about a portfolio strategy for your product line.

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